

AMENDMENTS TO THE CLAIMS

1. (Original) A promoter for ATP release from erythrocytes, comprising a substance which stabilizes the structure of hemoglobin in erythrocytes in the T-state.

2. (Original) The promoter according to claim 1, wherein the substance which stabilizes the structure of hemoglobin in erythrocytes in the T-state is at least one selected from the group consisting of bezafibrate, nitric oxide, carbon dioxide and adenosine.

3. (Original) The promoter according to claim 1 or 2, which is capable of releasing ATP extracellularly under an oxygen partial pressure of 100 mmHg or less.

4. (Original) A pharmaceutical composition comprising a substance which stabilizes the structure of hemoglobin in erythrocytes in the T-state.

5. (Original) The pharmaceutical composition according to claim 4, wherein the substance which stabilizes the structure of hemoglobin in erythrocytes in the T-state is at least one selected from the group consisting of bezafibrate, nitric oxide, carbon dioxide and adenosine.

6. (Original) The pharmaceutical composition according to claim 4 or 5, which is capable of releasing ATP extracellularly under an oxygen partial pressure of 100 mmHg or less.

7. (Currently amended) The pharmaceutical composition according to ~~any one of claims 4 to 6~~ claim 4, which is a vasodilator or a blood flow improver.

8. (Original) A method of releasing ATP from erythrocytes, comprising stabilizing the structure of hemoglobin in the erythrocytes in the T-state.

9. (Original) The method according to claim 8, wherein ATP is released under an oxygen partial pressure of 100 mmHg or less.

10. (Original) An inhibitor against ATP release from erythrocytes, comprising a substance which stabilizes the structure of hemoglobin in erythrocytes in the R-state.

11. (Original) The inhibitor according to claim 10, wherein the substance which stabilizes the structure of hemoglobin in erythrocytes in the R-state is carbon monoxide or sulfonylurea.

12. (Original) The inhibitor according to claim 10 or 11, which is capable of inhibiting ATP release under an oxygen partial pressure of 100 mmHg or less.

13. (Original) A pharmaceutical composition comprising a substance which stabilizes the structure of hemoglobin in erythrocytes in the R-state.

14. (Original) The pharmaceutical composition according to claim 13, wherein the substance which stabilizes the structure of hemoglobin in erythrocytes in the R-state is carbon monoxide or sulfonylurea.

15. (Original) The pharmaceutical composition according to claim 13 or 14, which is capable of inhibiting ATP release under an oxygen partial pressure of 100 mmHg or less.

16. (Currently amended) The pharmaceutical composition according to ~~any one of claims 13 to 15~~ claim 13, which is a vasoconstrictor or a blood flow regulator.

17. (Original) A method of inhibiting ATP release from erythrocytes, comprising stabilizing the structure of hemoglobin in the erythrocytes in the R-state.

18. (Original) The method of claim 17, wherein ATP release is inhibited under an oxygen partial pressure of 100 mmHg or less.

19. (Original) Erythrocytes in which the structure of hemoglobin is stabilized in the T-state.

20. (Original) The erythrocytes according to claim 19, which have been treated with at least one substance selected from the group consisting of bezafibrate, nitric oxide, carbon dioxide, adenosine and hydrogen ion.

21. (Original) The erythrocytes according to claim 19 or 20, which are capable of releasing ATP under an oxygen partial pressure of 100 mmHg or less.

22. (Original) Erythrocytes in which the structure of hemoglobin is stabilized in the R-state.

23. (Original) The erythrocytes according to claim 22, which have been treated with carbon monoxide or sulfonylurea.

24. (Original) The erythrocytes according to claim 22 or 23, which are capable of inhibiting ATP release under an oxygen partial pressure of 100 mmHg or less.

25. (Currently amended) A pharmaceutical composition comprising the erythrocytes according to ~~any one of claims 19 to 24~~ claim 19.

26-30. (Cancelled).

31. (Currently amended). A pharmaceutical composition comprising the erythrocytes according to ~~any one of claims 22 to 24~~ claim 22.

32-33. (Cancelled).

34. (Original) A method of measuring ATP, comprising quantitatively determining the amount of ATP released from erythrocytes in an oxygen concentration-dependent manner.

35. (Original) A method of enhancing ATP release from erythrocytes, comprising adding adenosine to an erythrocyte suspension and exposing the resultant suspension to a no oxygen or low oxygen partial pressure condition.

36. (Original) The method according to claim 35, wherein the no oxygen or low oxygen partial pressure condition is a condition where oxygen partial pressure is 0-150 mmHg.

37. (Original) A method of enhancing ATP release from erythrocytes, comprising adding adenosine to an erythrocyte suspension and exposing the resultant suspension to a carbon dioxide partial pressure of 60-80 mmHg.

38. (Original) The method according to any one of claims 35 to 37, wherein the concentration of adenosine is 0.1-10 $\mu\text{mol/L}$.

39. (Original) A method of controlling ATP release from erythrocytes, comprising adding a substance that inhibits the anion permeation function of band 3 protein to an adenosine-added erythrocyte suspension.

40. (Original) The method of claim 39, wherein the substance that inhibits the anion permeation function of band 3 protein is sulfonylurea.

41. (Original) A controller for ATP release from erythrocytes, comprising a substance that inhibits the anion permeation function of band 3 protein.

42. (Original) The controller according to claim 41, wherein the substance that inhibits the anion permeation function of band 3 protein is sulfonylurea.

43. (Cancelled).

44. (New) A method for treating an ischemic disease or acidosis, comprising administering a patient in need thereof an effective amount of the pharmaceutical composition of claim 25.

45. (New) The method of claim 44, wherein the ischemic disease is at least one selected from the group consisting of hemorrhagic shock, myocardial infarction, angina pectoris, cerebral infarction, intracerebral hemorrhage, obliterative arterial diseases, vascular disorders caused by diabetes, coronary artery stenosis, ischemic diseases of extremities, arteriosclerosis obliterans and ischemic ulcer/necrosis.

46. (New) The method of claim 44, wherein the ischemic disease is ischemia-reperfusion syndrome.

47. (New) The method of claim 46, wherein the ischemia-reperfusion syndrome results from at least one cause selected from the group consisting of post-shock resuscitation, perfusion after cold storage of organs, recanalization of blood flow after surgical operations, and reconstruction of obliterated blood vessels.

48. (New) A method for treating a vasodilatory disease, comprising administering to a patient in need thereof an effective amount of the pharmaceutical composition of claim 31.

49. (New) The method of claim 48, wherein the vasodilatory disease is septic shock or anaphylactic shock.